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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,624	01/05/2000	Soren Stammers	491.036US1	1920

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EXAMINER

KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 10/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/478,624

Applicant(s)

STAMMERS ET AL.

Examiner

Chuck O Kendall

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the application filed 01/05/00.
2. Claims 1 - 45 have been examined.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 27, 40, & 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 27, 40 & 41 are neither an apparatus or process and doesn't fall under any known category of statutory matter. As disclosed claim cites "a signal conveying instructions ...", and is not an acceptable hybrid statutory category such as product by process. Claims have to meet certain guidelines to be considered statutory,

- (1) "Tangible" - Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. § 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed in a tangible medium which enabled its functionality to be realized.

Claim objections

5. Claim 22, & 40 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 22, which is dependent upon claim 1, cites an Apparatus for use in a system. However, claim 1 is

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citing a system. Also claim 40 cites a signal conveying instructions, which is dependent upon claim 28, but claim 28 cites a programmable processing apparatus. In either case the apparatus as cited is not further limiting or being further limited.

6. Claims 27, 40 & 41 are objected to because of the following informalities: " a signal conveying instructions...". Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,3,4,6-8,16-27, 41-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Parthasarathy et al. USPN 6,347,398 B1.

As per claims 1,24,25,26, & 27 Parthasarathy anticipates a system, a method (col. 36), a storage device (col.35), comprising a programmable user processing apparatus for use by a user and at least one storage apparatus, the storage apparatus storing data defining separate components of at least one processing application, wherein the user processing apparatus is configured to fetch data defining components of a processing application to be used by the user from the storage apparatus, and to install the components to enable the application to be used by the user (fig.4, 68,74).

As per claim 3, system according to claim 1, wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in

accordance with user instructions and to use the re-fetched data for the application (fig.5, 94, also see 8:20-35 for request and download).

As per claim 4, a system according to claim 1, wherein the user processing apparatus is operable to store data defining at least one of the received components after the application is shut down, and to use the stored data when the application is reused by the user (23: table, for reboot and shutdown).

As per claim 6, a system according to claim 1, wherein the data defining each component defines any further components which are needed by the component, and wherein the user processing apparatus is configured to receive user instructions defining an application, to determine a first component needed for the application, to fetch the first component and identify any further components required, to fetch any further components required, and to continue identifying and fetching components until all of the components for the required application have been obtained (fig.6, 98,100,110).

As per claim 7, a system according to claim 6, wherein the user processing apparatus is operable to determine the first component from user instructions (fig.6, 98).

As per claim 8, a system according to claim 6, wherein the user processing apparatus is operable to determine the first component from a database of components (15:40-45).

As per claim 16, a system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads such that a component can not change a thread other than one under which it is running (5:38,6:10-20).

As per claim 17, a system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads to prevent a component setting the priority of a thread above a predetermined level (6:10-20).

As per claim 18, a system according to claim 17, wherein the user processing apparatus is configured to set the predetermined level in dependence upon the priority

of the threads for running its control functions to ensure that a component cannot override a control function (6:1-10, for priority, see order).

As per claim 19, a system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the component is from a given supplier (fig.3, see verification module).

As per claim 20, a system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the data defining the component has been changed since it was provided by the supplier (fig.3, see verification module, also fig.5, 86).

As per claim 21, a system according claim 1, wherein the user processing apparatus is operable to use a given component in a plurality of applications (fig.3, 60,19:5-15).

As per claim 22, a programmable processing apparatus for use in system according to claim 1, comprising: means for downloading data defining a plurality of separate components of a processing application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus (fig.3, 60,19:5-15); and

means for installing the received components to enable the application to be used by a user (fig.3, 60,19:5-15).

As per claim 23, a storage apparatus for use in a system according to claim 1, comprising memory storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus (fig.1, 32).

As per claim 41, Parathasarathy anticipates, a signal conveying data defining a component for forming part of at least one processing application (3:1-20).

As per claim 42, see claim 41 for reasoning.

As per claim 43, programmable processing apparatus for use in a system according to claim 1, comprising: means for downloading data defining a plurality of separate components of a processing application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus (8:25-35); and

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means for installing the received components to enable the application to be used a user (8:45-47).

As per claim 44, a storage apparatus for using a system according to claim 1, comprising memory means storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus (fig. 7A, 124, 122).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 5, 9-13, 28-32, 35-40, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parthasarathy et al. USPN 6,347,398 B1 as applied in claims 1, 4 in view of McNally et al. US 6,259,448.

As per claims 2, Parthasarathy discloses all the claimed limitations as applied in claim 1 above. Parthasarathy doesn't explicitly disclose being configured to re-fetch data defining one or more of the components in accordance with defined rules and to use the re-fetched data for the application. However, McNally does disclose this feature (fig. 4, 38 and fig. 5, 40, see state rules). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and McNally because, using rules during component or program retrieval in a distributed system, makes the system more dynamic.

As per claim 5, Parthasarathy discloses all the claimed limitations as applied in claim 4 above. Parthasarathy doesn't explicitly disclose operable to store and reuse the data in accordance with defined rules. However, McNally does disclose this feature (3:11-30, for rules see routines for use and storage). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine

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Parathasathy and McNally because, using rules/routines during component or program retrieval in a distributed system with a plurality of nodes/machines makes the system retrieve and access information more efficiently, since certain rules and routines can be used for specific groups of machines or scenarios.

As per claim 9, Parthasarathy discloses all the claimed limitations as applied in claim 1 above. Parthasarathy doesn't explicitly disclose wherein the user processing apparatus is configured to install the components so that the components are isolated from each other and to permit operational interaction between the components in accordance with defined interaction rules. However, McNally does disclose this feature (McNally, 2:63-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and McNally because, installing components independently of other components using defined rules makes the system more manageable.

As per claim 10, a system according to claim 9 wherein the data defining the components includes interaction rules (McNally, fig. 4, see state rules, and mapping rules).

As per claim 11, a system according to claim 10, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type (McNally, 6:55-65).

As per claim 12, Parthasarathy discloses all the claimed limitations as applied in claim 1 above. Parthasarathy doesn't explicitly disclose wherein the user processing apparatus is configured to, install the components so that the components are isolated from resources of the user processing apparatus, and to permit access by the components to the isolated resources in accordance with defined rules. However, McNally does disclose this rules (McNally, 7:10 -25 & 63 - 67, 8:8 -15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and McNally because, permitting or allowing access to components using defined rules makes the system more secure.

As per claim 13, a system according to claim 12, wherein the user processing apparatus is configured to route each request from a component for access to a

resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules (Parthasarathy, fig.3, 62, see verification module).

As per claim 28,38, and 45 Parthasarathy discloses a programmable processing apparatus, comprising: a receiver for receiving data defining a plurality of separate components to make up a processing application (Parthasarathy, 19:22-25); a loader for installing the received components to enable the application to be run (Parthasarathy, 19:1-10, see download module). Parthasarathy doesn't explicitly disclose wherein the loader is arranged to install the components such that the components are isolated from each other and so as to permit operational interaction between the components in accordance with defined rules. However, McNally does disclose this feature (6:55-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy with McNally because, installing components independently of other components using defined rules makes the system more manageable.

As per claim 29, apparatus to claim 28, wherein the loading is configured to permit operational interaction between the components in accordance with rules defined in received data defining the components (McNally, 2:63-65).

As per claim 30, apparatus according to claim 29, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type (Parthasarathy, fig. 6, 98).

As per claim 31, apparatus according to any of claims 28, wherein the loading means is configured to install the data so that the components are isolated from resources of the apparatus, and to permit access by the components to the isolated resources in accordance with defined rules (Parthasarathy, fig.4, 72).

As per claim 32, apparatus according to claim 31, wherein the load is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules (Parthasarathy, fig.4, 72).

As per claim 35, apparatus according to claim 28, wherein the receiving means is operable to receive data defining a component from a storage medium (Parthasarathy, fig.1,32).

As per claim 36, apparatus according to claim 28, wherein the receiver is operable to receive data defining a component transmitted as a signal from an external apparatus (Parthasarathy, fig.5, 94).

As per claim 37, Apparatus according to claim 28 wherein the loading means is operable to use a given component in a plurality of applications (Parthasarathy, fig.3, 60,19:5-15).

As per claim 39, a storage device storing instructions for causing a programmable processing apparatus to become configured as an apparatus as claimed in claim 28 (Parthasarathy, fig.4, 68).

As per claim 40, a signal conveying instructions for causing a programmable processing apparatus to become configured as an apparatus as claimed in claim 28 (Parthasarathy, fig.4, 68).

11. Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parthasarathy et al. USPN 6,347,398 B1 as applied in claim 9 & 28, in view of McNally et al. US 6,259,448.

As per claims 14, & 33 Parthasarathy discloses all the claimed limitations as applied in claims 9, & 28 above. Parthasarathy doesn't explicitly disclose wherein the user processing apparatus is provided with a Java virtual machine and is arranged to load each component into the Java virtual machine. However, McNally does disclose this feature (McNally, 8:20-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and McNally because, because employing the use of Java / Java Virtual Machine, in a distributed environment is a general practice and makes the system more portable and robust.

12. Claim 15, & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parthasarathy et al. USPN 6,347,398 B1 as applied in claim 14, and 33 in view of McNally et al. US 6,259,448, and further in view of Wong et al. USPN 6,216,152 B1.

As per claims 15 & 34, Parthasarathy as modified by McNally discloses all the claimed limitations as applied in claims 14 and 33 above. Neither Parthasarathy nor McNally discloses wherein the user processing apparatus is configured to load each component into the Java virtual machine using a different class loader. However, Wong does disclose this limitation (6:10-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wong into Parthasarathy as modified by McNally because, using the Java class loader to install classes or programs is flexible and efficient, since classes can be searched and installed from different sources as specified in the Java class path.

Correspondence Information

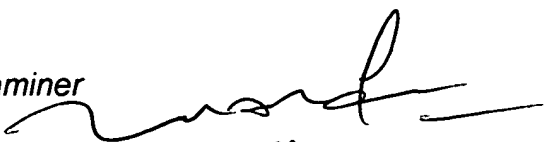
13. Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam *can be* reached at (703) 305-4552.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

For facsimile (fax) send to 703-7467239 official and 703-7467240 draft

Chuck O. Kendall
Software Engineer Patent Examiner


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